

Patent Claims

1. Energy supply unit (5) for a measuring device (1) for determining
5 and/or monitoring a physical or chemical, process variable of a medium,
characterized in that
at least one voltage limiting unit (10) and/or at least one current limiting unit
(15) is provided in the energy supply unit (5),
wherein the voltage limiting unit (10) is embodied in such a manner that
10 arising voltages remain below a value that leads to an explosion in an
explosion-endangered area,
and/or
wherein the current limiting unit (15) is embodied in such a manner that
arising currents and/or heatings associated therewith remain below a value
15 that leads to an explosion in an explosion-endangered area.
2. Apparatus as claimed in claim 1,
characterized in that
at least one energy source (20) is provided in the energy supply unit (5).
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3. Apparatus as claimed in claim 2,
characterized in that
the energy source (20) is at least one battery and/or at least one fuel cell.
- 25 4. Apparatus as claimed in claim 2,
characterized in that,
in the energy supply unit (5), at least one capsule unit (25) is provided, in
which the energy source (20) is located.
- 30 5. Apparatus as claimed in claim 4,

characterized in that at least one voltage limiting unit (10) and/or at least one current limiting unit (15) are/is provided in the capsule unit (25).

6. Apparatus as claimed in claim 1 or 5,
5 characterized in that
the voltage limiting unit (10) is at least one drop resistance.

7. Apparatus as claimed in claim 1, 5 or 6,
characterized in that
10 the current limiting unit (15) is a plurality of drop resistances (16).

8. Apparatus as claimed in claim 1 or 2,
characterized in that,
at least one switch-on unit (30) is provided, which activates the energy
15 supplying of the measuring device (1) by the energy supply unit (5).

9. Apparatus as claimed in claim 1, 2 or 8,
characterized in that
at least one time limiting unit (31) is provided, which turns off the energy
20 supplying of the measuring device (1) by the energy supply unit (5) after an
adjustable time span.

10. Apparatus as claimed in claim 1, 2 or 8,
characterized in that
25 at least one checking unit (35) is provided, which checks the energy source
(20) regarding its energy content.

11. Apparatus as claimed in claim 1,
characterized in that
30 the energy supply unit (5) is a modular unit.